

## AIRMAX VS<sup>®</sup> 85Ω CONNECTOR SYSTEM

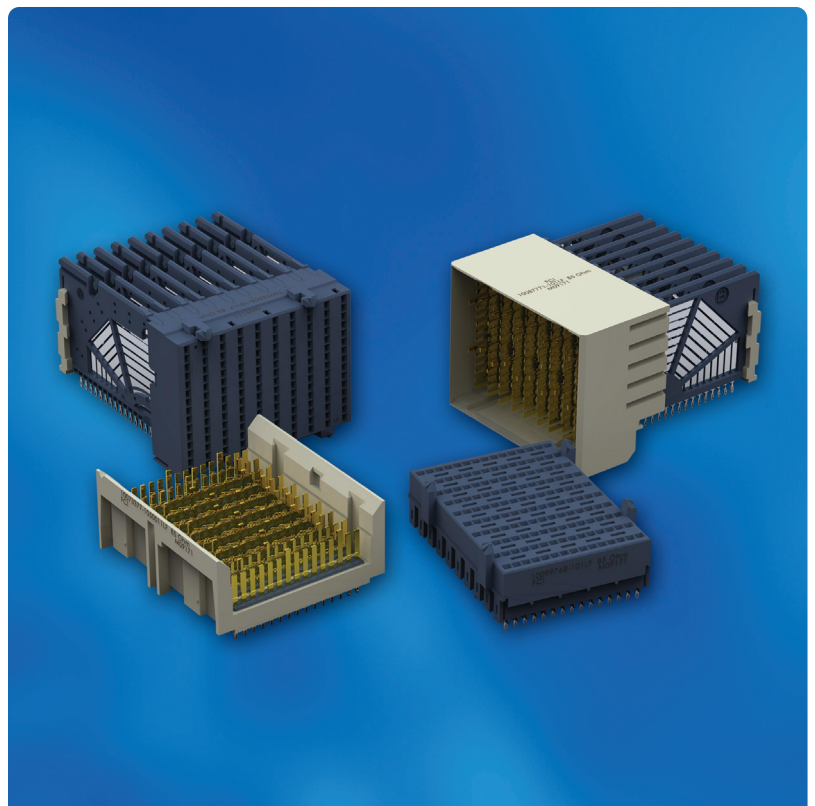
Enables Intel<sup>®</sup> Quick Path Interconnect (Intel<sup>®</sup> QPI) Links

### DESCRIPTION

AirMax VS<sup>®</sup> 85Ω connectors are optimized to minimize impedance discontinuities and unacceptable signal loss when inserted in 85Ω channels. The connectors' mating interfaces also satisfy demands for backwards compatibility to legacy 100Ω product interfaces ensuring a smooth transition to next-generation designs.

These products have been tested and fully comply with the differential insertion loss, impedance, and crosstalk requirements defined in the Intel<sup>®</sup> QPI connector specifications. With the Intel<sup>®</sup> QPI architecture offering transfer rates of 6.4 Gb/s to > 8 Gb/s per lane between processors or processors and I/O controllers, memory bandwidth utilization is significantly lower, enabling multiple bi-directional 10 GbE ports in a server.

Standard connector configurations include vertical and right-angle header and receptacle signal modules to enable backplane and coplanar connections.



### FEATURES & BENEFITS

- Tested and fully compliant with Intel<sup>®</sup> QPI connector specifications
- Support increased QPI link speeds of 6.4 Gb/s and >8 Gb/s
- Right-angle and vertical receptacles and headers support backplane and coplanar connections
- Backwards-compatibility to 100Ω mating interfaces provides a smooth transition to new designs
- Available with 2mm or 3mm column spacing
- Complementary power connectors and guide modules complete range
- Compatible with Hard Metric design practice
- Halogen-free products aid efforts to minimize the use of environmentally sensitive materials in the electronics industry

### TARGET MARKETS / APPLICATIONS

- Data
  - Servers
  - External Storage Systems
  - Intel<sup>®</sup> QPI links



## TECHNICAL INFORMATION

### MATERIALS

- Contacts: Copper Alloy
- Plating: Performance-based plating at separable interface (Telcordia GR-1217 CORE Central Office)
- Housing: High temperature thermoplastic, UL 94V-0

### ELECTRICAL PERFORMANCE

- Average Differential Impedance: 85Ω+/- 5 Ωs @ 50ps (10-90%) risetime
- Insertion Loss: <1.5dB through 8 Gbps
- Worst-case Multi-active Near-end Crosstalk: < -30 dB through 8 Gbps
- Worst-case Multi-active Far-end Crosstalk: < -30 dB through 8 Gbps

### MECHANICAL PERFORMANCE

- Mating force: 0.45N maximum per contact
- Unmating force: 0.15N minimum per contact
- Press-fit insertion force: 40N maximum per compliant tail except for vertical receptacle which is 25N maximum per tail

### ENVIRONMENTAL

- Per Telcordia Central Office requirements

### PART NUMBERS

Application	Column Pitch	Configuration	Header Type	Right-Angle Header	Vertical Receptacle
Backplane	2mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10097311-101LF*	10099767-101LF
Backplane	3mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10087771-101LF*	10099768-101LF
Backplane	2mm	3 pairs/column x 6 columns (18 differential pairs)	4-wall	10097256-101LF*	10096461-101LF

Application	Column Pitch	Configuration	Header Type	Vertical Header	Right-Angle Receptacle
Backplane	2mm	5 pairs/column x 10 columns (50 differential pairs)	2-wall	10095500-1050011LF	10095504-101LF
Backplane	3mm	5 pairs/column x 10 columns (50 differential pairs)	2-wall	10073377-1050011LF	10095505-101LF

Application	Column Pitch	Configuration	Header Type	Right-Angle Header	Right-Angle Receptacle
Coplanar	2mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10097311-101LF*	10095504-101LF
Coplanar	3mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10087771-101LF*	10095505-101LF

Product drawings, specifications and additional technical information are available at [www.fci.com/airmax](http://www.fci.com/airmax).

\* Note: Contact FCI at [airmax@fci.com](mailto:airmax@fci.com) for additional information on these part numbers.

### SPECIFICATIONS

- Product Specification: GS-12-239
- Application Specification: GS-12-035

### APPROVALS AND CERTIFICATIONS

- Telcordia GR-1217-CORE, Central Office
- UL/CSA recognized

### OTHER SPECIFICATIONS

- Intel® QPI Connector Specifications

### PACKAGING

- Tubes
- Trays (Vertical receptacle only)

### ASSOCIATED PRODUCTS

- AirMax VS 100 Ω connector system
- ZipLine™ high-density connector system
- Hard-Metric High-Power connectors
- HCI® High-Power connectors
- Guide modules